PASTERNACK®
THE ENGINEER'S RF SOURCE



10 dBm P1dB, 50 MHz to 40 GHz, USB Controlled Broadband Amplifier, 12 dB Gain, 2.92mm

TECHNICAL DATA SHEET PE15A3901

The PE15A3901 is a broadband amplifier covering 50 MHz to 40 GHz. The amplifier has a 12 dB of typical Gain, +/- 2.5 dB typical flatness and a P1dB of +10 dBm typical. This amplifier is controlled and powered via USB 2.0 with driverless installation, so no external power supply is required.

Features

- 0.05 GHz to 40 GHz Frequency Range
- P1dB: 10 dBm typ
- Small Signal Gain: 12 dB typ
- Gain Flatness: ±2.5 dB typ
- Noise Figure: 4.5 dB typ to 20 GHz, 5.5 dB typ to 40 GHz
- 50 Ohm Input and Output Matched
- Unconditionally Stable
- USB type a plug DC Positive Supply
- Built-in Voltage Regulator
- 2.92 mm female Input/Output Connectors

Applications

- Laboratory Applications
- R&D Labs
- Military Radio
- Radar Systems
- Telecom Infrastructure
- Test Instrumentation
- Military & Space
- Communication Systems
- Wireless Communication
- Microwave Radio Systems
- Cellular Base Stations
- Low Noise Amplifier
- General Purpose Amplification
- General Purpose Wireless
- Wideband Gain Block
- IF Amplifier/RF Driver Amplifier
- RF Wideband Front Ends
- RF Pre-amplification

Electrical Specifications (TA = +25°C)

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.05		40	GHz
Gain		12		dB
Gain Flatness		±2.5		dB
Output at 1 dB Compression Point		+10		dBm
Noise Figure at 0.05 to 20 GHz		4.5		dB
Noise Figure at 20 to 40 GHz		5.5		dB
Input VSWR		2.3:1		
Output VSWR		2.3:1		
Operating Temperature Range (OTR)	-40		+85	°C

Mechanical Specifications

Input Connector	2.92mm
Output Connector	2.92mm

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: 10 dBm P1dB, 50 MHz to 40 GHz, USB Controlled Broadband Amplifier, 12 dB Gain, 2.92mm PE15A3901

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

ISO 9001 : 2008 Registered

© 2015 Pasternack Enterprises All Rights Reserved



10 dBm P1dB, 50 MHz to 40 GHz, USB Controlled Broadband Amplifier, 12 dB Gain, 2.92mm

Environmental Specifications

Temperature

Operating Range	-40 to +85 deg C
Storage Range	-55 to +125 deg C

Compliance Certifications (visit www.Pasternack.com for current document)

Not RoHS Compliant

Plotted and Other Data

Notes:

- Values at +25 °C, sea level
- ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.



Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: 10 dBm P1dB, 50 MHz to 40 GHz, USB Controlled Broadband Amplifier, 12 dB Gain, 2.92mm PE15A3901

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

ISO 9001 : 2008 Registered

© 2015 Pasternack Enterprises All Rights Reserved

PASTERNACK®
THE ENGINEER'S RF SOURCE

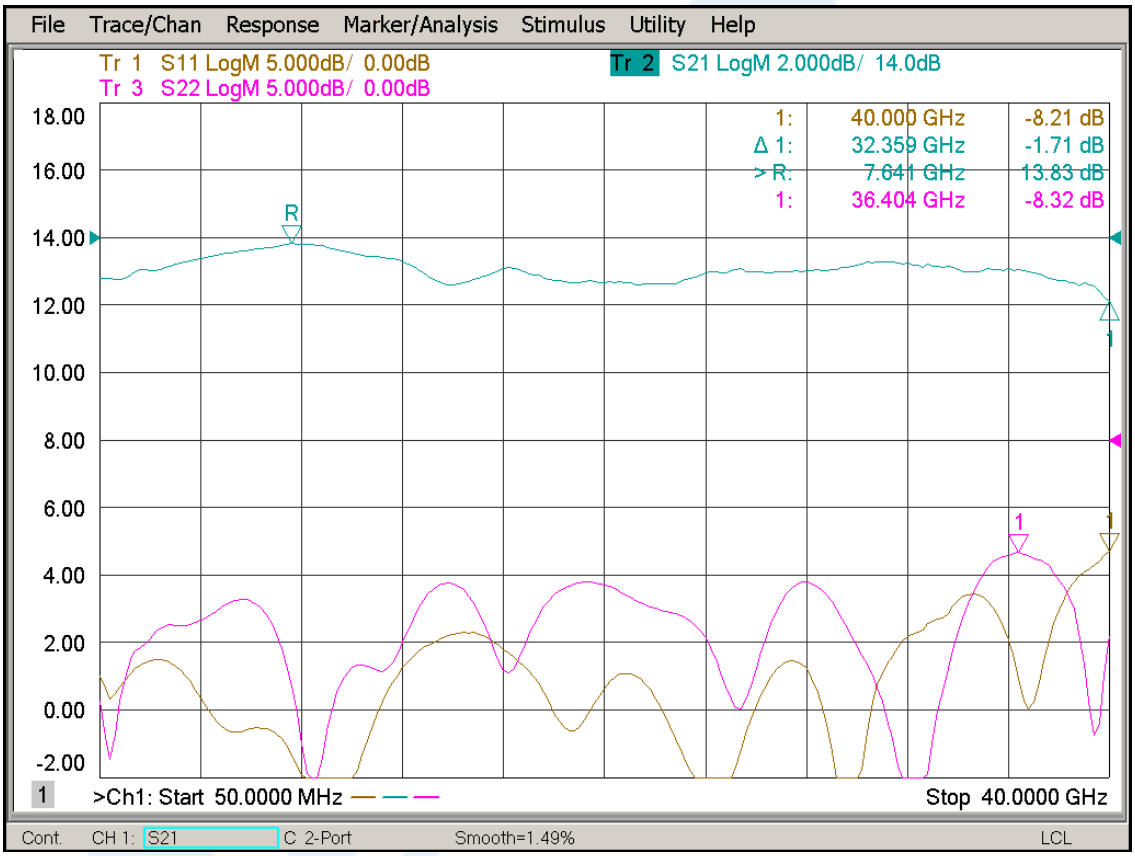


10 dBm P1dB, 50 MHz to 40 GHz, USB Controlled Broadband Amplifier, 12 dB Gain, 2.92mm

TECHNICAL DATA SHEET PE15A3901

Typical Performance Data

Gain & Return Loss



Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: 10 dBm P1dB, 50 MHz to 40 GHz, USB Controlled Broadband Amplifier, 12 dB Gain, 2.92mm PE15A3901

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

ISO 9001 : 2008 Registered

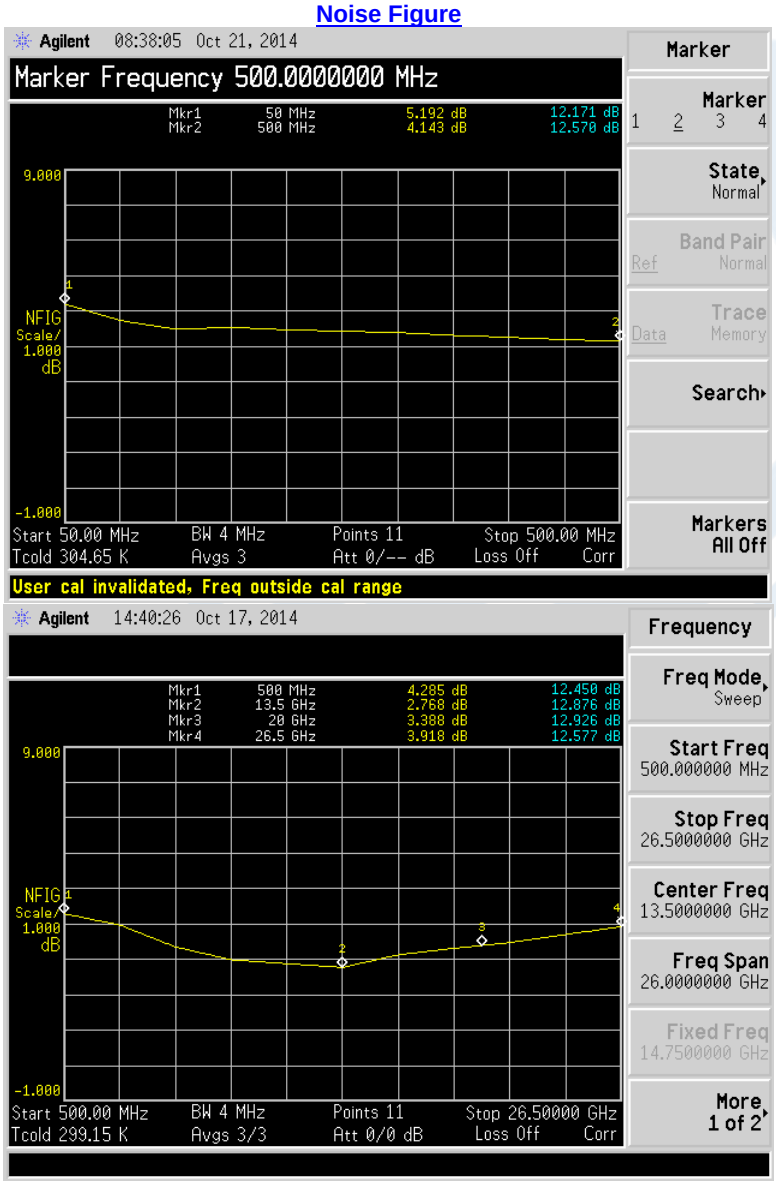
© 2015 Pasternack Enterprises All Rights Reserved



10 dBm P1dB, 50 MHz to 40 GHz, USB Controlled Broadband Amplifier, 12 dB Gain, 2.92mm

TECHNICAL DATA SHEET PE15A3901

Noise Figure



Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: 10 dBm P1dB, 50 MHz to 40 GHz, USB Controlled Broadband Amplifier, 12 dB Gain, 2.92mm PE15A3901

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

ISO 9001 : 2008 Registered

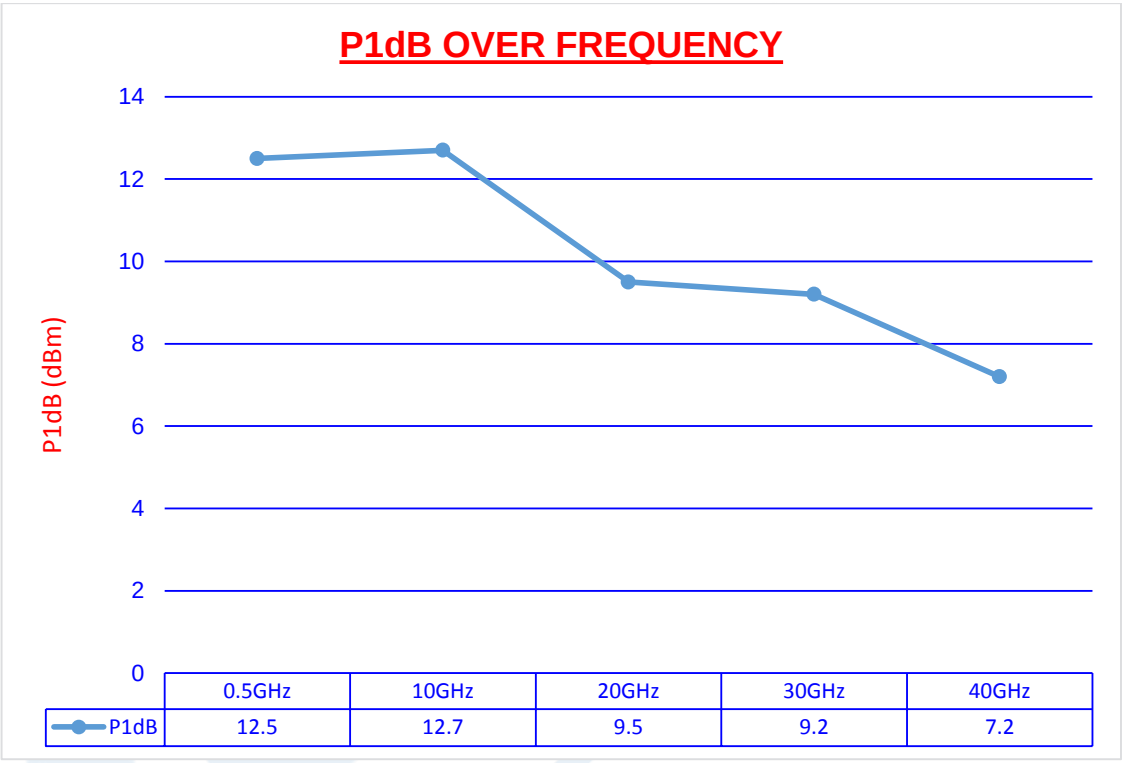
© 2015 Pasternack Enterprises All Rights Reserved

PASTERNACK®
THE ENGINEER'S RF SOURCE



10 dBm P1dB, 50 MHz to 40 GHz, USB Controlled Broadband Amplifier, 12 dB Gain, 2.92mm

TECHNICAL DATA SHEET PE15A3901



10 dBm P1dB, 50 MHz to 40 GHz, USB Controlled Broadband Amplifier, 12 dB Gain, 2.92mm from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: 10 dBm P1dB, 50 MHz to 40 GHz, USB Controlled Broadband Amplifier, 12 dB Gain, 2.92mm PE15A3901

URL: http://www.pasternack.com/40-ghz-broadband-usb-amplifier-12-db-gain-2.92mm-pe15a3901-p.aspx

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

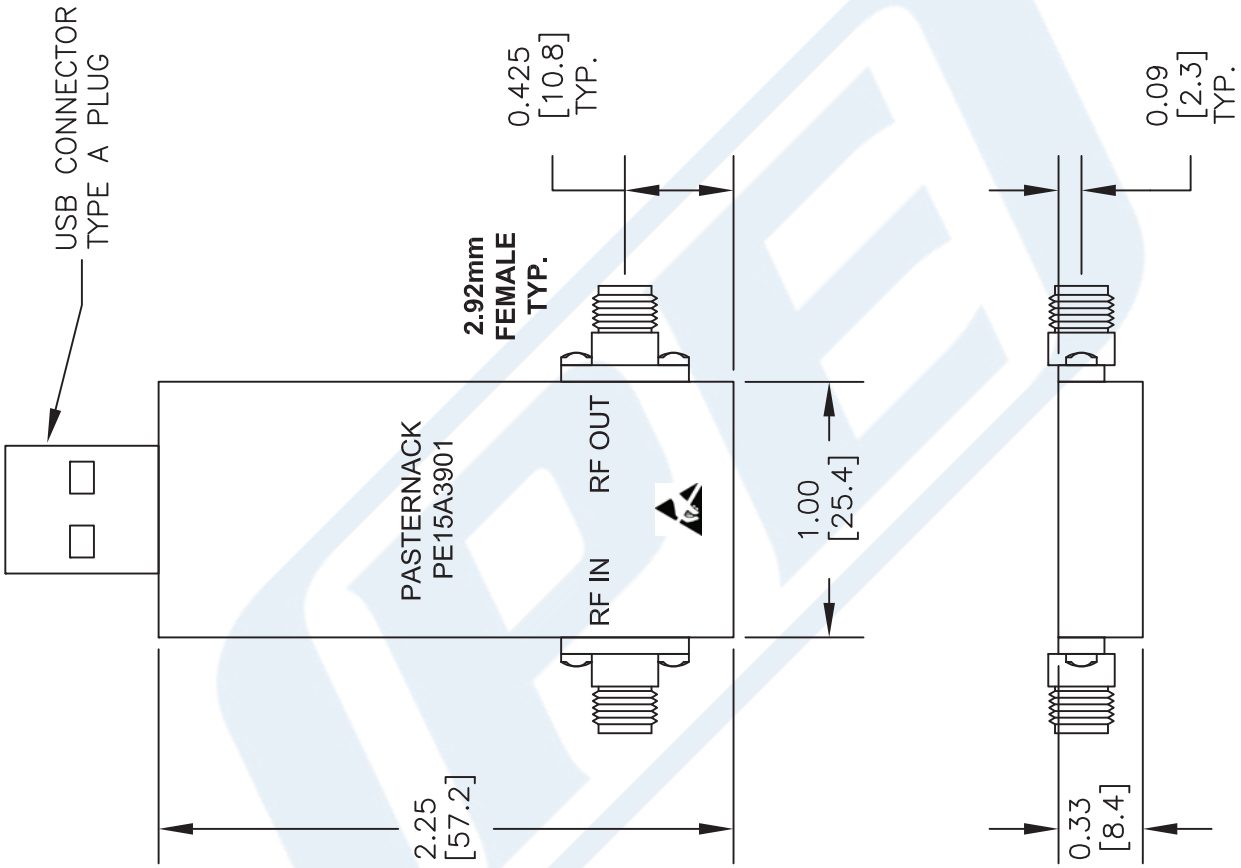
Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

ISO 9001 : 2008 Registered

© 2015 Pasternack Enterprises All Rights Reserved

PE15A3901 CAD Drawing

10 dBm P1dB, 50 MHz to 40 GHz, USB Controlled
Broadband Amplifier, 12 dB Gain, 2.92mm



NOTES:
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
3. DIMENSIONS ARE IN INCHES [mm].

CAD FILE	031814	SCALE N/A	SIZE A	2233

DWG TITLE: PE15A3901

FSCM NO. 53919

PASTERNACK® THE ENGINEER'S RF SOURCE
Pasternack Enterprises, Inc.
P.O. Box 16759 | Irvine | CA | 92623
Phone: (949) 261-1920 | **Fax:** (949) 261-7451
Website: www.pasternack.com | **E-Mail:** sales@pasternack.com

© 2015 Pasternack Enterprises All Rights Reserved